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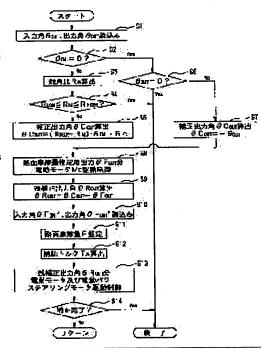
KATO YUSUKE

## (54) STEERING ANGLE RATIO VARYING DEVICE

## (57)Abstract:

PROBLEM TO BE SOLVED: To restore the positional relationship between an input shaft and an output shaft to a proper state while the rotation of a steering wheel is restrained in a stable state even when the steering angle position of the output shaft to the input shaft is deviated in a steering angle ratio varying device in which a steering angle ratio varying mechanism is interposed to change a steering angle ratio by rotating the output shaft in state where the transmission of turning force is capable between the input shaft steered by the steering operation of a driver and dirigible road wheels.

SOLUTION: When the deviation of the position of the output shaft to the input shaft from a proper position is detected at the time of turning on of an ignition switch (step S4 and step S6), an electric motor applies a prescribed small amount of rotary driving force to the output shaft (step S8), and a road surface fiction amount is estimated based on an output angle which rotates actually and the input shaft which rotates by its reaction force (step S11). When the electric motor corrects the output shaft, the rotary amount of the output shaft is assisted by an electric power steering motor according to the estimated friction amount.



## **LEGAL STATUS**

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